

CARDONE™ ProTech®

Supporting Today's Vehicle Technician



Properly Diagnose Vacuum Pump Failure

Application All pulley-driven vacuum pumps.

Problem Premature vacuum pump failure.

Cause Incorrect belt tension, bent pulleys, collapsed or deteriorated vacuum hoses, brake fluid entering the unit or wrong unit.

Solution Follow the checklist below to prevent pump failure.

- Verify pump is correct for the application. Different shaft sizes are used because of different pump rotation. **DO NOT** modify the pulley to force installation. If the pump is operated in the wrong direction it will fail.
- Do not over-tighten pulley belt. Make sure an automatic tensioner is working correctly. Be sure the belt is properly aligned with the pulley or tensioner.
- **ALWAYS** install the pulley using the supplied installation kit or appropriate tool. **DO NOT** use a press or hammer to install pulley.
- A faulty master cylinder or booster seal can allow brake fluid to enter the vacuum pump. If brake fluid enters the system it will be necessary to replace all three parts.
- Do not allow radiator or power steering hoses to contact the pump. Excess heat transferred from the hoses will destroy the vacuum pump.
- Check inlet hose for collapsing. A blocked or collapsed hose will cause bearing failure. When replacing vacuum hoses use only vehicle manufacturer specified hoses.
- **DO NOT LUBRICATE THE UNIT!** CARDONE™ units are assembled using a specific type and amount of lubricating oil. Adding oil through the hose will damage the diaphragm and cause the unit to fail prematurely.
- Be sure the area around the vacuum pump is clear of debris.
- Verify the repair by checking the available vacuum before and after vacuum pump replacement. Use a vacuum gauge to measure pump vacuum level (minimum 18 inches of mercury).



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